

WHAT IS CLAIMED IS:

1. A method of enhancing wound healing in an external wound in an individual in need of such treatment,
5 comprising the step of:

injecting a cholesterol-containing cationic liposome into said wound, said liposome comprising at least one gene encoding a growth factor.

10 2. The method of claim 1, wherein said wound is selected from the group consisting of thermal trauma, chemical trauma, excisional trauma, surgical trauma and abrasion.

15 3. The method of claim 1, wherein said growth factor is selected from the group consisting of growth hormone, insulin-like growth factor-I, keratinocyte growth factor, fibroblast growth

factor, epidermal growth factor, platelet derived growth factor and transforming growth factor- β .

5 4. The method of claim 3, wherein said growth factor is insulin-like growth factor-I (IGF-I) and the concentration of said gene encoding IGF-I in the liposomes is about 2.2 $\mu\text{g}/10 \mu\text{l}$ liposomes.

10 5. A method of enhancing wound healing in an external wound, comprising the step of:

 covering said wound with a wound coverage material, wherein said wound coverage material is impregnated with a
15 cholesterol-containing cationic liposome, said liposome comprising at least one gene encoding a growth factor.

6. The method of claim 5, wherein said impregnation of said wound coverage material is performed prior to covering said wound or subsequent to covering said wound.

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7. The method of claim 5, wherein said wound is selected from the group consisting of thermal trauma, chemical trauma, excisional trauma, surgical trauma and abrasion.

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8. The method of claim 5, wherein said wound coverage material is selected from the group consisting of human fetal amnion, human fetal chorion, human cadaver skin and synthetic skin.

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9. The method of claim 5, wherein said growth factor is selected from the group consisting of growth hormone, insulin-like growth factor-I, keratinocyte growth factor, fibroblast growth

factor, epidermal growth factor, platelet derived growth factor and transforming growth factor- β .

5 10. The method of claim 9, wherein said growth factor is insulin-like growth factor-I (IGF-I) and the concentration of said gene encoding IGF-I in the liposomes is about 2.2 $\mu\text{g}/10 \mu\text{l}$ liposomes.

10 11. A method of enhancing wound healing in an external wound, comprising the step of:

 covering said wound with a wound closure material, wherein said wound closure material is impregnated with a
15 cholesterol-containing cationic liposome, said liposome comprising at least one gene encoding a growth factor.

12. The method of claim 11, wherein said impregnation of said wound coverage material is performed prior to covering said wound or subsequent to covering said wound.

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13. The method of claim 11, wherein said wound is selected from the group consisting of thermal trauma, chemical trauma, excisional trauma, surgical trauma and abrasion.

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14. The method of claim 11, wherein said wound closure material is selected from the group consisting of human fetal amnion, human fetal chorion, human syngeneic skin, and human allogeneic skin.

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15. The method of claim 11, wherein said growth factor is selected from the group consisting of growth hormone, insulin-like growth factor-I, keratinocyte growth factor, fibroblast

growth factor, epidermal growth factor, platelet derived growth factor and transforming growth factor- β .

5 16. The method of claim 15, wherein said growth factor is insulin-like growth factor-I (IGF-I) and the concentration of said gene encoding IGF-I in the liposomes is about 2.2 $\mu\text{g}/10 \mu\text{l}$ liposomes.

10 17. An enhanced wound dressing for external wounds, comprising:

a wound coverage material; and

15 a cholesterol-containing cationic liposome comprising at least one gene encoding a non-insulin-like growth factor.

18. The enhanced wound dressing of claim 17, wherein said wound coverage material is selected from the group consisting

of human fetal amnion, human fetal chorion, human cadaver skin,
and synthetic skin.

5 19. The enhanced wound dressing of claim 17, wherein
said growth factor is selected from the group consisting of growth
hormone, keratinocyte growth factor, fibroblast growth factor,
epidermal growth factor, platelet derived growth factor and
transforming growth factor- β .

10 20. A composition for enhancing wound healing in an
external wound, comprising:

15 a cholesterol-containing cationic liposome, said
liposome comprising at least one gene encoding a non-insulin-like
growth factor; and

 a pharmaceutically acceptable carrier.

21. The composition of claim 20, wherein said wound is selected from the group consisting of thermal trauma, chemical trauma, excisional trauma, surgical trauma and abrasion.

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22. The composition of claim 20, wherein said growth factor is selected from the group consisting of growth hormone, keratinocyte growth factor, fibroblast growth factor, epidermal growth factor, platelet derived growth factor and transforming growth factor- β .

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23. The composition of claim 20, wherein said composition is packaged such that said composition can be loaded into a syringe.

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24. The composition of claim 20, wherein said composition is packaged in a syringe.